

**Work Order ID 59241**

Friday, May 28, 2010 9:51:04 AM

Page 1

Item ID: D3187-2

Accept

Revision ID:

Item Name: Spacepod Floor

Start Date: 5/27/2010 Start Qty: 4.00

Required Date: 6/4/2010 Req'd Qty: 4.00

Reference:

Approvals:

Process Plan: ✓Date: 10-5-28

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Setup Start

Stop

Run Start

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool # Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

Draw Nbr

Revision Nbr

D3187

Rev C

100



Waterjet

FLOW WATER JET

0.00

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg D3187 ☐ Dwg Rev: C ☐ Prog Rev: C ☐ 2-  
Deburr if necessary

6061 .050

B10-6-21

(6)

110



QC

QC2- Inspect parts off machine FAI/FAIB

0.00

Memo

0.00

Quality Control

\*\*\*TEMPLATE DT3187-1T1\*\*\*

B10-6-21

120



QC

QC8- Inspect parts - second check

0.00

Memo

0.00

Quality Control

S10/06/22

(46)

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector	
			Initial Chief Eng	Action Description Chief Eng	Sign & Date				

NOTE: Date & initial all entries

# Work Order ID 59241

Friday, May 28, 2010 9:51:04 AM



Page 2

Item ID: D3187-2

Revision ID:

Item Name: Spacepod Floor

Start Date: 5/27/2010 Start Qty: 4.00

Required Date: 6/4/2010 Req'd Qty: 4.00

Reference:

Accept



Setup

Start

Stop

Cust Item ID:

Customer:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start

Stop

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130



HandFinish

Hand Finishing

Chemical Conversion Coat per QSI005 4.1

0.00

Memo

0.00

⑥

BR 10-6-23.

140



Powdercoat

Powder Coating

Black Sandtex(Ref.4.3.5.7) per QSI005 4.3

0.00

Memo

0.00

START TIME:

9:15

FINISH TIME:

OVEN TEMPERATURE:

19:15

⑥

BL 10-6-24.

150



QC

Quality Control

QC3- Inspect Part Finish

0.00

Memo

0.00

mt

10

06

24

⑥

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 59241

Friday, May 28, 2010 9:51:04 AM

Page 3

Item ID: D3187-2

Revision ID:

Item Name: Spacepod Floor

Start Date: 5/27/2010 Start Qty: 4.00

Required Date: 6/4/2010 Req'd Qty: 4.00

Reference:

Accept

Setup

Start

Stop

Cust Item ID:

Customer:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start

Stop

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool # Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

160



Small Fab

Small Fab

Small Fab

0.00

Memo

0.00

1- install D2986-1 rubber spacer using contact cement and trim to fit if necessary as per dwg D3187 A/R contact cement Batch: 112983 2- transfer holes from spacepod floor to rubber spacer

87 10 08 09

170



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

81060869

(X)

180



Packaging

Packaging

Identify as per dwg & Stock Location: 241A

0.00

Memo

0.00

10/8/10 sf (2)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 59241**

Friday, May 28, 2010 9:51:04 AM



Page 4

Item ID: D3187-2

Accept



Setup

Start



Revision ID:

Stop



Item Name: Spacepod Floor

Start Date: 5/27/2010 Start Qty: 4.00



Cust Item ID:

Required Date: 6/4/2010 Req'd Qty: 4.00



Customer:

Reference:

Run

Start



Stop



Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool # Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

190

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10/08/10  
MF  
10-8-10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

Friday, May 28, 2010 9:51:08 AM

Page 1

Work Order ID: 59241



Parent Item: D3187-2



Parent Item Name: Spacepod Floor

Comments: IPP: C05.04.14 Now a purchased part KJ/JLM  
 IPP Rev:D Now on Waterjet 07-04-19 JLM  
 IPP Rev:E Now Powder Coated 07-05-24 JLM  
 IPP Rev:F 09-01-20 rev.C as per dwg DD verified by:EC

Start Date: 5/27/2010

Required Date: 6/4/2010

Start Qty: 4.00

Required Qty: 4.00

D2986-1

Manufactured No

110

Each



Rubber Spacer

B59409x5  
 860770x1

Location

Loc Qty

ST242

3

57659

3

M6061T6S.050

Purchased

No

160

sf



6061-T6 .050 Sheet

Location

Loc Qty

MAT21

39.09

110791

4.5

113216

31.59

17349

3

114993

3.0000



4

Loc Code

39.0900

7.43



31.28421

44.6

1810-6-21

Loc Code

114993

6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



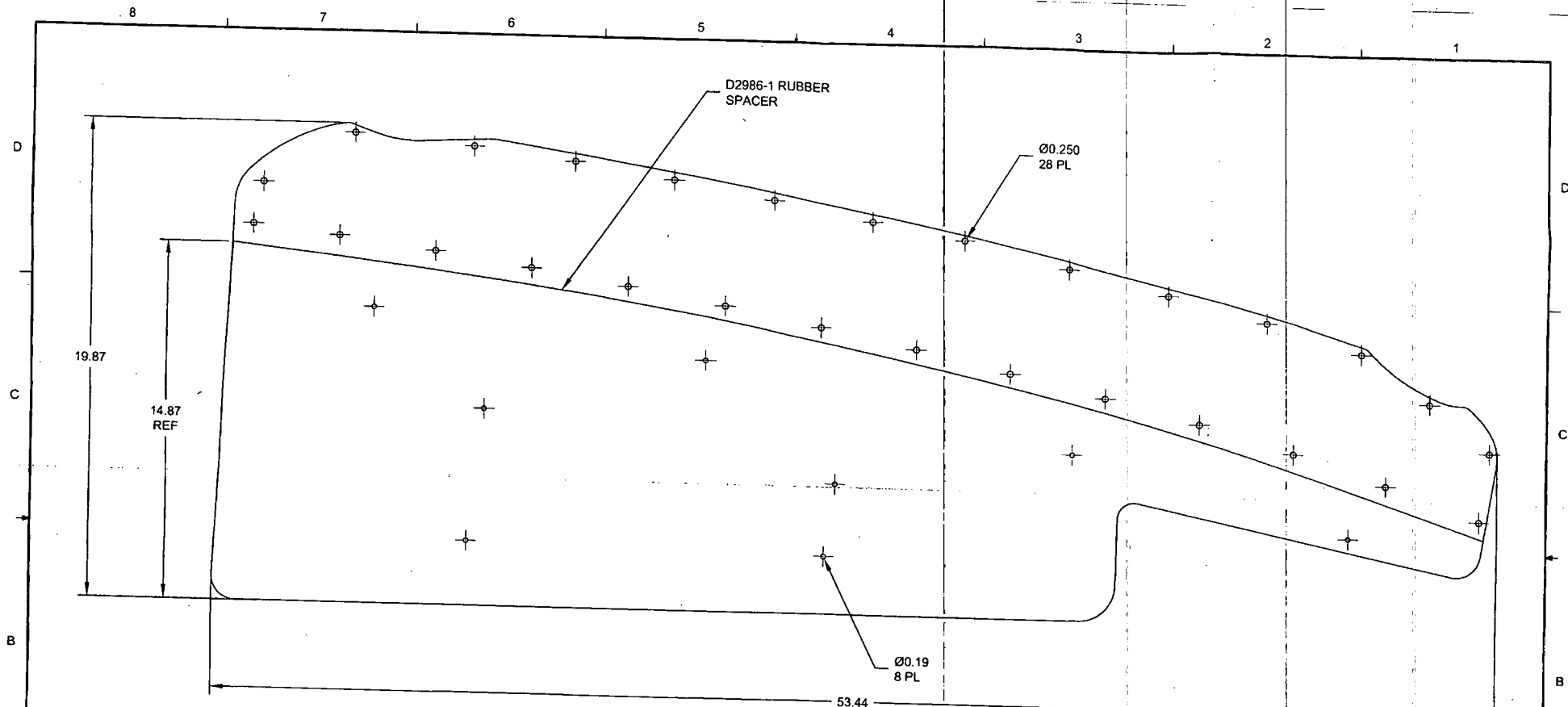
W/O:			WORK ORDER CHANGES					
DATE	STEP		PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:			WORK ORDER NON-CONFORMANCE (NCR)					
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



**D3187-1 SPACEPOD FLOOR**

**D3187-1 SPACEPOD FLOOR NOTES:**

- 1) MATERIAL: 6061-T6 (OR 6061-T62) ALUMINUM SHEET, 0.050 THICK  
PER QQ-A-250/11 OR AMS 4025 OR AMS 4027  
(REF DART SPEC. M6061T6S.050)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT BLACK SANDTEX (4.3.5.7) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3187-1" USING WHITE FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 4.2 LBS
- 8) TOOLING: CUT/DRILL PER TEMPLATE DT3187-1T1
- 9) AFTER FINISH, INSTALL D2986-1 RUBBER SPACER USING CONTACT CEMENT. TRIM TO FIT

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 17-59247

C	REDRAWN TO CURRENT STANDARDS; TRANSFERRED TO B-SIZE FORMAT; ADDED SHEET 2; CREATED DETAIL FOR D3187-2; REVISED SHEET 1 NOTES. REASON: CLARIFIED DRAWINGS FOR D3187-1/2.	MB	09.01.05
B	CHANGE SHAPE	CP	03.05.16
A	NEW ISSUE	CP	03.03.31
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	09.01.05		

**DART AEROSPACE LTD**  
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. D3187  
REV. C  
SHEET 1 OF 2

TITLE SPACEPOD FLOOR  
SCALE NTS

COPYRIGHT © 2003 BY DART AEROSPACE LTD  
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

**RELEASED**  
09.01.05

*pl 10-5-28*

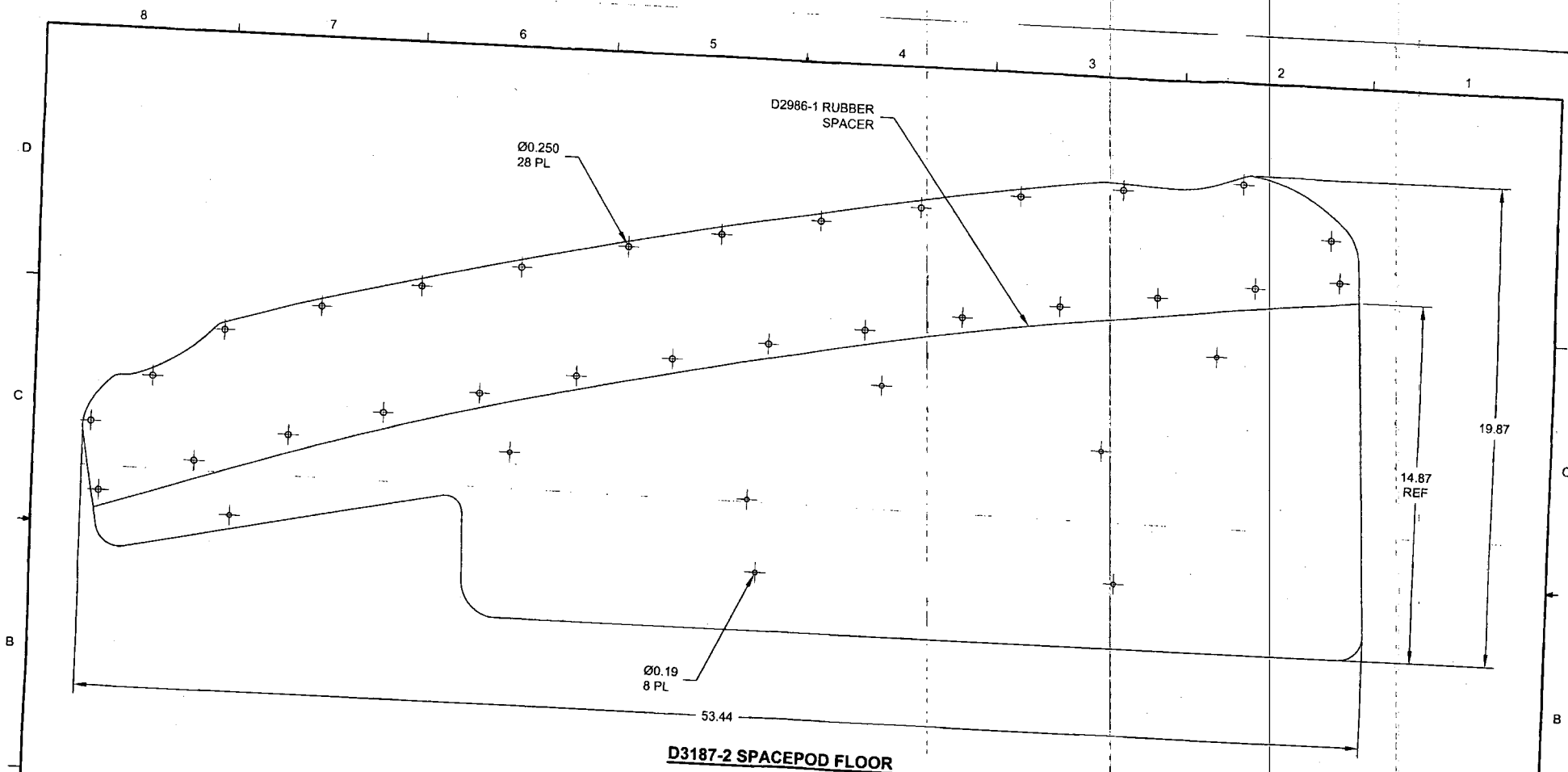
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



**D3187-2 SPACEPOD FLOOR NOTES:**

- 1) MATERIAL: 6061-T6 (OR 6061-T62) ALUMINUM SHEET, 0.050 THICK  
PER QQ-A-250/11 OR AMS 4025 OR AMS 4027  
(REF DART SPEC. M6061T6S.050)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT BLACK SANDEX (4.3.5.7) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3187-2" USING WHITE FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 4.2 LBS
- 8) TOOLING: CUT/DRILL PER TEMPLATE DT3187-1T1
- 9) AFTER FINISH, INSTALL D2986-1 RUBBER SPACER USING CONTACT CEMENT. TRIM TO FIT

**RELEASED**  
09-01-08

DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3187	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.		SPACEPOD FLOOR	NTS
DATE	09.01.05	<small>COPYRIGHT © 2003 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

W1059241

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries